Client Reference: DC-04733/AEP

## **CLAIMS**

What is claimed is:

1. An information handling system having pin coded connectors for power source 1 connection to power supplies, said system comprising: 2 3 information handling equipment; a power distribution board (PDB) having pin coded connectors adapted for 4 coupling to at least one modular power supply, wherein the pin coded connectors are 5 6 coupled to said information handling equipment such that the at least one modular power supply powers said information handling equipment; and 7 a plurality of conductive layers in said PDB, wherein selected ones of said 8 plurality of conductive layers couple the pin coded connectors to at least power source. 9 2. The information handling system according to claim 1, wherein the at least one 1 power source is selected from the group consisting of alternating current (AC) and direct 2 3 current (DC). 3. The information handling system according to claim 2, wherein the AC power 1 source is from about 110 to 130 volts AC. 2 The information handling system according to claim 2, wherein the AC power 4. 1 source is from about 210 to 250 volts AC. 2

The information handling system according to claim 2, wherein the DC power

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source is about 48 volts DC.

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1 6. The information handling system according to claim 1, wherein each of the pin coded connectors have connections designated to at least one power source.

- 7. The information handling system according to claim 6, wherein some of the connections of the pin coded connectors are common for either the AC or DC power sources.
- 1 8. The information handling system according to claim 2, wherein at least one of the 2 plurality of conductive layers is common for either the AC or DC power sources.
- 9. The information handling system according to claim 6, further comprising cutouts in said PDB between some of the connections of the pin coded connectors.
- 1 10. The information handling system according to claim 9, wherein the cutouts are sized to meet safety requirements for power source voltage isolation.
  - 11. The information handling system according to claim 6, wherein said plurality of conductive layers couples the pin coded connectors to other information handling equipment connectors on said PDB.
- 1 12. The information handling system according to claim 1, wherein the at least one 2 modular power supply plugs into a respective one of the pin coded connectors on said PDB.
- 1 13. An apparatus having at least one pin coded connector for coupling at least one 2 power supply to at least one power source, comprising:
- a power distribution board (PDB) having at least one pin coded connector adapted for coupling to at least one power supply; and

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5 a plurality of conductive layers in said PDB, wherein selected ones of said 6 plurality of conductive layers couple the at least one pin coded connector to at least 7 power source.

- 14. The apparatus according to claim 13, wherein said at least one pin coded 1 connector has connections designated to at least one power source. 2
- 15. The apparatus according to claim 14, wherein different connections of the at least 1 2 one pin coded connector are used for different power sources.
- 16. The apparatus according to claim 14, wherein said at least one pin coded 2 connector has connections that are common for different power sources.
- 17. The apparatus according to claim 14, further comprising cutouts in said PDB 1 between some of the connections of the at least one pin coded connector. 2
  - 18. The apparatus according to claim 17, wherein the cutouts are sized to meet safety requirements for power source voltage isolation.
  - 19. The apparatus according to claim 14, wherein some of said plurality of conductive layers are common for different power sources.
- 1 20. The apparatus according to claim 14, wherein some of the connections are 2 common for the different power sources.

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